Practice: 484 - Mulching

Scenario: #1 - Natural Material - Full Coverage

# **Scenario Description:**

Application of straw mulch or other other state approved natural material to reduce erosion and facilitate the establishment of vegetative cover. Mulch provides full coverage and is typically used with critical area planting. Assumes 125 bales/acre (3 bales/1000 sq ft)

### **Before Situation:**

Typical scenario ranges from a 0.1 to 1.0 acre disturbed site around a newly constructed structural practice. The potential for soil erosion is high and mulch is needed to stabilize the soil and facilitate the establishment of vegetative cover.

### **After Situation:**

Straw mulch has been applied to areas needing mulch. Erosion and sedimentation is reduced, water and soil quality is protected, and vegetative cover is established.

Scenario Feature Measure: Area Covered by Mulch

Scenario Unit: Acre

Scenario Typical Size: 1

Scenario Cost: \$489.13 Scenario Cost/Unit: \$489.13

Cost Details (by catego	ry):			Price		
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$36.60	0.5	\$18.30
Labor						
General Labor		Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$18.70	10	\$187.00
Materials						
Straw		Small grain straw (non organic and certified organic). Includes materials only.	Ton	\$113.53	2.5	\$283.83

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Scenario: #2 - Erosion Control Blanket

## **Scenario Description:**

Installation of erosion control blanket on critical areas with steep slopes, grassed waterways or diversions. Blanket is typically made of coconut coir, wood fiber, straw and is typically covered on both sides with polypropylene netting. Used to help control erosion and establish vegetative cover.

#### **Before Situation:**

There are areas of concentrated flow or very steep eroding areas needing a high level of erosion protection. Soil erosion is a concern and there is little to no vegetation.

#### **After Situation:**

The erosion control blanket is placed on concentrated flow or steep areas and secured with ground stables. Soil erosion is minimized and vegetative cover is established.

Scenario Feature Measure: Area Covered by Mulch

Scenario Unit: Square Foot Scenario Typical Size: 5,000

Scenario Cost: \$937.45 Scenario Cost/Unit: \$0.19

Cost Details (by category): Price **Component Name Component Description** Unit **Quantity Cost** (\$/unit) Labor General Labor 231 Labor performed using basic tools such as power tool, Hour \$18.70 16 \$299.20 shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. Materials \$1.15 Erosion Control Blanket, 1213 Biodegradable erosion control blanket, typically a Square 555 \$638.25 composite of natural fibers with reinforcing polymer biodegradable Yard netting. Materials and shipping only.

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Scenario: #3 - Synthetic Material

## **Scenario Description:**

Installation of geotextile, biodegradable plastic, polyethylene plastic, or other state approved synthetic mulch to conserve soil moisture, moderate soil temperature, and provide erosion control. Payment based on actual area covered by mulching material.

### **Before Situation:**

Site conditions very. Typically scenarios include new tree and shrub plantings, irrigated orchards or vineyards, or annual and perennial specialty crops. Water quantity and soil moisture is a concern.

## **After Situation:**

Synthetic mulch is applied in rows with a mulch layer or by other mechanized means. Soil moisture is conserved, energy use associated with irrigation is decreased.

Scenario Feature Measure: SF Covered by Mulch

Scenario Unit: Square Foot Scenario Typical Size: 43,560

Scenario Cost: \$9,970.40 Scenario Cost/Unit: \$0.23

Cost Details (by category):

Component Name

ID Component Description

Light (6/100)

Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Equipment/Installation						
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.06	4840	\$9,970.40

Practice: 484 - Mulching Scenario: #4 - Tree and Shrub

## **Scenario Description:**

Barrier fabric or other suitable natural or synthetic mulch is installed with a new tree and shrub planting to support establishment. Typically used during the installation of conservation practices. Rate is per tree/shrub and assumes 1 square yard of barrier fabric and 5 staples/tree.

### **Before Situation:**

Site conditions vary. Typical scenario is an installation of 100 native trees and shrubs to enhance wildlife habitat. Sites are often remote and trees may not be planted in rows, requiring each tree to be mulched individually

### **After Situation:**

Barrier fabric squares are installed with 5 sod staples each, around individual trees and shrubs to aid establishment. Weeds are controlled and soil moisture conserved to aid tree/shrub growth establishment.

Scenario Feature Measure: Number of Trees Mulched

Scenario Unit: Each

Scenario Typical Size: 100

Scenario Cost: \$206.00 Scenario Cost/Unit: \$2.06

Cost Details (by category): Price **Component Name Component Description** Unit **Quantity Cost** (\$/unit) Equipment/Installation Geotextile, woven 42 Woven Geotextile Fabric. Includes materials, equipment Square \$2.06 100 \$206.00 and labor Yard